From: <sandykurtz@comcast.net>
To: <GCDExpPlan@uc.usbr.gov>
Date: Fri, Jan 26, 2007 12:19 PM
Subject: LTEP EIS Scoping Comments

Dear Mr. Gold,

Thank you for the opportunity to submit the following scoping comments for the Environmental Impact Statement on the Long-term Operations for the future operations of Glen Canyon Dam. The river ecosystem in Grand Canyon National Park has suffered immensely over the past forty years due to the operations of Glen Canyon Dam, and it's vital that a fresh look at the problem be undertaken. I have concerns, however, that the EIS as envisioned is destined to fail in this regard unless a number of critical issues are addressed.

First, I would like to express my tremendous dismay with the Department of Interior's mishandling of the recovery efforts in Grand Canyon National Park over the past 40 years, and that the information presented so far by the Bureau of Reclamation indicates that this EIS promises more of the same.

While new plans for ongoing investigation and experimentation can be beneficial, they are useless amidst a backdrop where the commitment to implement those plans is virtually non-existent. We've already experienced this with the completion of the first EIS twelve years ago, and there's nothing outlined in the purpose and need for this EIS process to indicate things will be any different once this process concludes. For this exercise to yield any meaningful outcome, the EIS process must be reconceived incorporating the following:

1. Restructuring the focus of the EIS on the recovery.

The principal objective should not be the long-term operation of Glen Canyon Dam, but the ingredients necessary to bring about the recovery and preservation of endangered species within the Colorado River corridor of Grand Canyon National Park. While such objectives may not be mutually exclusive, this has yet to be proven, and as such, one should precede the other. The focus must first address the ingredients necessary to restore the natural process to Grand Canyon's river ecosystem, and secondly how, and at what costs, can the Glen Canyon Dam/Lake Powell reservoir system be operated in order to achieve this. The restoration ingredients must include:

The return of river flows consistent with the Colorado River's natural discharge into Grand Canyon.

The re-establishment of a water temperature regime consistent with seasonal temperature variations of the Colorado River in Grand Canyon.

The re-establishment of sediment inputs into Grand Canyon consistent with the amount that would be received in a dam-free environment.

The elimination of non-native species, which have taken hold in the artificial riverine environment created by Glen Canyon Dam operations.

2. Evaluate the Decommissioning of Glen Canyon Dam.

The no-dam alternative must be evaluated as one means of achieving the restoration of the natural process necessary for the recovery and preservation of endangered species in Grand Canyon's river corridor. The no-dam alternative provides a valuable base line from which to evaluate other operational alternatives. Additionally, in light of the climate and human induced changes affecting flows into Lake Powell, and thus the viability of the dam to meet perceived water supply and hydroelectric benefits, BoR has additional incentive to examine a decommissioning or no-dam alternative consistent with the Council on Environmental Quality guidelines.

3. Replace the Working Groups of the Adaptive Management Program

Despite being given specific instructions twelve years ago as outlined in the 1995 EIS on Glen Canyon Dam operations, the Glen Canyon Dam Adaptive Management Program (AMP) has failed to deliver in almost every aspect, causing Grand Canyon's river ecosystem to endure further damage. Many of AMP's failings were spelled out in the United State's Geological Survey's SCORE Report of October 2005. It was precisely these failings that have compelled BoR to undertake this new EIS process as part of its settlement agreement with environmental groups last year. Absent any structural changes to the AMP, any recommendations coming out of this EIS process will be of little value, as there are no mechanisms to ensure they won't be ignored as were those from the EIS twelve years ago.

Dominated by water supply and hydroelectric power interests, it's not surprising that the AMP has been intransigent toward addressing the true needs for endangered species recovery in Grand Canyon. Scientific, not political and commercial interests, should be the sole advisors to the Secretary ofInterior on how Grand Canyon's river ecosystem should be studied, monitored and managed consistent with the recovery objectives.

Therefore, the AMP should be replaced by an open source and independent body of research and advisory scientists, where the monitoring and research data are consistently and thoroughly peer-reviewed prior to formulating any recommendations to the Secretary of Interior.

We're closing in on 50 years of ecological destruction in Grand Canyon National Park due to the operations of Glen Canyon Dam. For much of this time the public has been asking that this be remedied. We continue to lose valuable time and species as the BoR procrastinates and resists the public's mandate to put the resource first. While there are plenty of substitutes to achieve the benefits Glen Canyon Dam may provide, there will never be another Grand Canyon. It's time for the BoR to stop thwarting the public's interest to protect it.

Sincerely,

Sandra Kurtz
3701 Skylark Trail
Chattanooga, TN 37416

CC: <sandykurtz@comcast.net>, <ltepcomments@livingrivers.org>

ORIGINAL CM022707-01

Mr. Rick Gold
Regional Director, Bureau of Reclamation
Upper Colorado Region
Attn: UC-402
125 South State Street
Salt Lake City, Utah 84138-1147

Dear Mr. Gold,

I am a life-long paddler and I have had the opportunity to boat all over the U.S. and parts of the world. There is nothing like the Glen and Grand Canyon System anywhere else in the world. I have rafted the Grand Canyon and spent time kayaking and hiking in the Glen Canyon. The river ecosystem in Grand Canyon National Park has suffered immensely over the past forty years due to the operations of Glen Canyon Dam, and it's vital that a fresh look at the problem be undertaken. I have concerns, however, that the EIS as envisioned is destined to fail in this regard unless a number of critical issues are addressed.

First, I would like to express my tremendous dismay with the Department of Interior's mishandling of the recovery efforts in Grand Canyon National Park over the past 40 years, and that the information presented so far by the Bureau of Reclamation indicates that this EIS promises more of the same.

While new plans for ongoing investigation and experimentation can be beneficial, they are useless amidst a backdrop where the commitment to implement those plans is virtually non-existent. We've already experienced this with the completion of the first EIS twelve years ago, and there's nothing outlined in the purpose and need for this EIS process to indicate things will be any different once this process concludes. For this exercise to yield any meaningful outcome, the EIS process must be reconceived incorporating the following:

1. Restructuring the focus of the EIS on the recovery.

The principal objective should not be the long-term operation of Glen Canyon Dam, but the ingredients necessary to bring about the recovery and preservation of endangered species within the Colorado River corridor of Grand Canyon National Park. While such objectives may not be mutually exclusive, this has yet to be proven, and as such, one should precede the other. The focus must first address the ingredients necessary to restore the natural process to Grand Canyon's river ecosystem, and secondly how, and at what costs, can the Glen Canyon Dam/Lake Powell reservoir system be operated in order to achieve this. The restoration ingredients must include:

- The return of river flows consistent with the Colorado River's natural discharge into Grand Canyon.
- The re-establishment of a water temperature regime consistent with seasonal temperature variations of the Colorado River in Grand Canyon.
- The re-establishment of sediment inputs into Grand Canyon consistent with the amount that would be received in a dam-free environment.
- The elimination of non-native species, which have taken hold in the artificial riverine environment created by Glen Canyon Dam operations.

2. Evaluate the Decommissioning of Glen Canyon Dam.

The no-dam alternative must be evaluated as one means of achieving the restoration of the natural process necessary for the recovery and preservation of endangered species in Grand

Canyon's river corridor. The no-dam alternative provides a valuable base line from which to evaluate other operational alternatives. Additionally, in light of the climate and human induced changes affecting flows into Lake Powell, and thus the viability of the dam to meet perceived water supply and hydroelectric benefits, BurRec has additional incentive to examine a decommissioning or no-dam alternative consistent with the Council on Environmental Quality guidelines.

3. Replace the Working Groups of the Adaptive Management Program.

Despite being given specific instructions twelve years ago as outlined in the 1995 EIS on Glen Canyon Dam operations, the Glen Canyon Dam Adaptive Management Program (AMP) has failed to deliver in almost every aspect, causing Grand Canyon's river ecosystem to endure further damage. Many of AMP's failings were spelled out in the United State's Geological Survey's SCORE Report of October 2005. It was precisely these failings that have compelled BurRec to undertake this new EIS process as part of its settlement agreement with environmental groups last year. Absent any structural changes to the AMP, any recommendations coming out of this EIS process will be of little value, as there are no mechanisms to ensure they won't be ignored as were those from the EIS twelve years ago.

Dominated by water supply and hydroelectric power interests, it's not surprising that the AMP has been intransigent toward addressing the true needs for endangered species recovery in Grand Canyon. Scientific, not political and commercial interests should be the sole advisors to the Secretary of Interior on how Grand Canyon's river ecosystem should be studied, monitored and managed consistent with the recovery objectives.

Therefore, the AMP should be replaced by an open source and independent body of research and advisory scientists, where the monitoring and research data are consistently and thoroughly peer-reviewed prior to formulating any recommendations to the Secretary of Interior.

We're closing in on 50 years of ecological destruction in Grand Canyon National Park due to the operations of Glen Canyon Dam. For much of this time the public has been asking that this be remedied. We continue to lose valuable time and species as the BurRec procrastinates and resists the public's mandate to put the resource first. While there are plenty of substitutes to achieve the benefits Glen Canyon Dam may provide, there will never be another Grand Canyon. It's time for the BurRec to stop thwarting the public's interest to protect it.

Sincerely,

Saundra R. Stehlin

Saundra R. Stehlin Conservation Chair-OH-PA Division of the American Canoe Association
1860 VanBlaricum Road
Cincinnati, Ohio 45233-1440

From: Shalyn Bauschlicher <shalynb@yahoo.com>
To: <GCDExpPlan@uc.usbr.gov>
Date: Fri, Feb 23, 2007 6:32 PM
Subject: taz payer comments

I am a tax paying resident of AZ and I support these ideas to help preserve our beautiful state!

-Restore flow regimes to properly transport the sediment and nutrients within Grand Canyon, when and where it belongs. The reduction in size and distribution of beaches, a result of Dam operations, has had significant impacts on downstream ecology and on associated recreational use.

-Restore the seasonally variable water temperature in the main stem of the Colorado River through Grand Canyon.

-Implement a restoration and recovery program for the Colorado River corridor in Grand Canyon that includes the recovery of all species known to be native to Grand Canyon prior to the operation of Glen Canyon Dam. Only four of eight native fish species continue to exist in the Grand Canyon. The Humpback Chub will fail to recover and likely go extinct if action isn't taken to reverse the degradation posed by Glen Canyon Dam

-Implement a non-native eradication program to minimize alien species in the Grand Canyon river corridor with a priority on those that prey on, compete with, or otherwise impair the health of native plants and animals.

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February 28, 2007

Mr. Rick Gold
Regional Director, Bureau of Reclamation
Upper Colorado Region
Attn: UC-402
125 South state St
Salt Lake City, Utah 84138-1147

Dear Mr. Gold

The Sierra Club appreciates the opportunity to comment on the scope of the Environmental Impact Statement for the Long-Term Experimental Plan and future operation of Glen Canyon Dam. The Sierra Club is America's oldest, largest and most influential grassroots environmental organization. Inspired by nature, the Sierra Club's more than 750,000 members—including 13,000 plus in Arizona as part of the Grand Canyon Chapter—work together to protect our communities and the planet. Our members recreate – hike, backpack, raft, fish, and more – in the areas downstream from the dam and have a significant interest in retaining and protecting the beaches, the archaeological sites, and the native fishes.

In the Colorado River Management Planning (CRMP) process, the National Park Service (NPS) put much of the burden of responsibility for adverse downstream ecological impacts on the Bureau of Reclamation (BOR) and their operation of Glen Canyon Dam. For instance, in the areas of impact to soils, aquatic resources, wildlife habitat, threatened and endangered species, the NPS has asserted that these problems are beyond their management responsibility and beyond the scope of the CRMP as a result of the large scale impact of dam operations. The NPS has the responsibility to manage Grand Canyon National Park and the BOR has a responsibility to manage the dam in a manner which will effectively reverse past and mitigate future adverse impacts on the river ecosystem. The NPS and the BOR should not shift responsibilities for these issues between different National Environmental Policy Act processes and avoid altogether an analysis of the impacts and an evaluation of alternatives.

Grand Canyon National Park's river ecosystem is in serious decline, largely due to the operation of Glen Canyon Dam upstream. The lack of natural flows, the loss of 95% of the corridor's sediment and nutrient base, and the dramatically reduced water temperature have had a devastating impact on Grand Canyon's riverine ecosystem (Shannon 2002, Valdez et al. 1999). The Department of the Interior has mishandled the recovery efforts for the Colorado River in Grand Canyon National Park for the last forty years. As a result the ecological integrity of the Colorado River system continues to decline.

In developing this new draft Environmental Impact Statement (EIS), it is imperative that the BOR include an analysis of all of the downstream resources that are affected by the current operations of Glen Canyon Dam. The special nature of these resources in Grand Canyon National Park requires that the

agency look at the full range of alternatives and the ongoing and cumulative impacts as well as alternatives to mitigate those negative impacts.

The new EIS must have a clear purpose and commitment to implement recovery of native species, sediment augmentation, temperature modification and restoration of the natural hydrograph. In order to meet the requirements of the Grand Canyon Protection Act, Endangered Species Act and National Environmental Protection Act, as well as comply with the settlement agreement of September 2006, we recommend the following be addressed in the EIS:

Impacts on Natural Resources - Soils

The 2004 Colorado River Management Plan (CRMP) DEIS states that a large portion of the negative impacts to soils results from the operation of Glen Canyon Dam. The assumptions common to all DEIS alternatives (page 225) of the CRMP states:

> "The diminished sediment load in the river below Glen Canyon Dam has resulted in, and will continue to result in, an overall reduction in the total number of beaches and individual beach sizes" (CRMP DEIS p225).

The 2005 USGS report on the state of the Colorado River is consistent with that finding:

> "The dam…continues to erode the limited fine sediment deposits that exist downstream… Sandbar erosion [has] continued despite changes in the operation of the dam that resulted from the implementation of the interim operating criteria in 1991 and the modified low fluctuating flow (MLFF) alternative in 1996."

Incredibly, the 2005 USGS study found that from 1990-2004 the Paria River was the "single largest sand supplier to the reaches below Glen Canyon Dam." Management of dam operations must deal with the continued effects of eroding beaches. The Bureau of Reclamation has an obligation to protect the Colorado River corridor and its natural resources by making management decisions that result in a reduction of the negative impacts.

Issues and Associated Impacts

The reduction in size and distribution of beaches, a result of dam operations, has had significant negative impacts on downstream ecology and on associated recreational use. As beaches disappear human impacts grow as the intensity of use on smaller areas increases. The CRMP DEIS states,

> "The Colorado human impact monitoring program (Brown and Jalbert 2003) has documented significant changes to soil and vegetation resources caused by recreationists, as well as a strong relationship between beach size and vegetation and soil impacts."

Furthermore, the size, number, and distribution of beaches used as campsites limit the river's recreational carrying capacity. Pages 233 and 419 of the DEIS establish and discuss the relationship between beach size and vegetation loss due to human impacts. "As beach size is diminished, impacts to soil and vegetation increase in the old high-water zone."

Moreover, the experimental floods of 1996 and 2004 did not provide the sediment gain required to save Grand Canyon's cultural sites along the river from deterioration. The 2005 USGS study found that the impacts from Glen Canyon Dam operations are resulting in a diminishing supply of sediment and is the primary contributor to the degradation of many archaeological sites in the river corridor (p187). It ends

by calling for the creation of sandbars above the level of normal dam operations and that, to be effective over the long-term, periodic high flows would need to be carried out at relatively frequent intervals.

Impacts on Natural Resources - Threatened, Endangered, and Sensitive (TES) Species
The issues identified during the scoping process for the CRMP and the effects analysis in the DEIS reveal that Threatened, Endangered, and Sensitive (TES) species are being affected at a level that will result in significant impacts to individual species as well as causing permanent disruption to natural ecosystem processes.

The Endangered Species Act (ESA) (16 U.S.C. 1531 et. seq.), the Grand Canyon Protection Act (Public Law 102-575), and the National Environmental Policy (42 USC 4321 et seq.) require Reclamation to assess the impacts of current and modified operations of Glen Canyon Dam on TES species. Since the Grand Canyon Protection Act was passed in 1992, Reclamation has been obliged to modify the operations of the dam on the Colorado River to reverse the dam's downstream impacts on the Canyon's river ecosystem. To this date, these efforts have failed to produce positive results.

The analysis of impacts to sensitive species is directly linked to the health of soil and vegetation resources. Sensitive species which require these resources for habitat production may be dramatically affected due to small populations and specialized habitat requirements. Impacts to sensitive species are likely to be long term and adverse unless strong management actions are taken during this planning process.

Unsuccessful Native Fish Recovery
The 1989 CRMP stated that the first goal of that plan was, "To preserve the natural resources and environmental processes of the Colorado River corridor and the associated riparian and river environments" (USDI 1989:9). Despite this commitment, the river corridor's resources are still in serious jeopardy. The natural food source with which native fish evolved has disappeared. Four of eight native main stem fish (Colorado Pikeminnow, Bonytail Chub, Roundtail Chub, Razorback Sucker) have been extirpated and three more (Humpback Chub, Flannelmouth and Bluehead Sucker) are in serious decline. In just 13 years, the humpback chub population in Grand Canyon has declined by two-thirds, from 10,500 in 1989 to 3,500 in 2002. The 2002 Recovery Goals defined a population as recovered at only 2,100 adults, a conclusion not supported by the best available science, and, incredibly, a lower value than when they were first listed as endangered. Otters and muskrats are also now gone from the canyon. Moreover, one of the major impacts of the Glen Canyon Dam on the Colorado River was the change in water temperature to a cold, steady water temperature that favors coldwater species like trout over native fishes. The native warm water species cannot reproduce and do not grow well in these cold waters (USGS 2005, p36).

Unsuccessful Adaptive Management Program
The unsuccessful "Modified Low Fluctuating Flow Alternative" (MLFF) enacted in the Adaptive Management Program has not achieved the desired results in protecting the Canyon's resources including the beaches, fishes, and cultural sites.

Cumulative Impacts
The cumulative impacts analysis in the 2004 DEIS for TES species identifies the operation of Glen Canyon Dam as the major factor cumulatively affecting TES species. According to page 515 of the 2004 DEIS:

> The [Glen Canyon] dam has created a new vegetative structure that should remain relatively stable under current operations. The ongoing erosion of beaches under the current operating parameter, however, could result in additional impacts to fish and wildlife resources. As beaches erode, river recreationists tend to move into vegetated areas to accommodate camping needs, resulting in additional wildlife habitat degradation. The impacts to threatened, endangered and sensitive species would be increased as the loss or degradation of habitat accelerated.

Impacts on each listed threatened and endangered species must be set forth explicitly and addressed in the Long Term Plan. In addition, the Bureau of Reclamation must consult with the U.S. Fish and Wildlife Service with respect to this Plan, as required by the Endangered Species Act. The final plan should remedy deficiencies and provide for the recovery of at-risk species.

Impacts on Natural Resources - Water Quality

Water quality is an important concern in the Colorado River corridor and even small changes to water quality can result in substantial changes in dependent aquatic flora and fauna. Operation of the dam affects the water quality of Lake Powell and downstream releases. Restoration of water quality must be addressed in the EIS taking into account the effects of different release structures and their affects on downstream ecology. The EIS should also consider salinity levels, water temperature, turbidity and suspended sediment, nutrients and dissolved oxygen concentrations. An additional critical factor that must be considered is the impact of drought on the quality of dam releases.

Impacts of reduced flows associated with climate change

Long-term climatic trends can influence inflows into Lake Powell and affect the quality of dam releases (USGS 2005, p83). Reservoir levels, yearly operations, and local precipitation affect riparian vegetation growth and development within all vegetation zones along the river corridor (Ibid, p111). Due to the prolonged drought, Lake Powell water storage has been reduced by approximately 60%. The reduction in annual flow releases can reduce water available for prescribed flow releases which have been designed to benefit riverine habitat in the Grand Canyon. Significantly, a recent report by the National Research Council that studied the Colorado River's flow over the last several hundred years with tree ring data has found that future droughts may be longer and more severe because of a regional warming trend. The report also states that "the preponderance of scientific evidence suggests that warmer future temperatures will reduce future Colorado River streamflow and water supplies. Reduced streamflow would also contribute to increasing severity, frequency, and duration of future droughts." (National Academies of Science, 2007) The U.S. Bureau of Reclamation was one of the sponsors of this study.

Impacts on Natural Resources - Terrestrial Wildlife

The issues identified related to terrestrial wildlife during the scoping process for the Colorado River Management Plan (CRMP) indicate an increasing set of potential impacts as the effects analysis moves from soils, to vegetation and into the species which require these resources for habitat production. The DEIS acknowledges this link and expansion of effects on page 441 when stating, "Habitat modification indirectly affects terrestrial wildlife." Like the issues of soil and vegetation, habitat loss is directly linked to the issue of beach erosion and the resulting determination of carrying capacity.

Impacts on Natural Resources - Vegetation

The low fluctuating flows which have typified dam operations 1991 to present favor the establishment of non-native plants like tamarisk. In addition, native riparian vegetation is disappearing from the high water zones or is stunted due to the lack of nutrients and the invasion of competing non-native plants. Lower peak flows have allowed plant species, including nonnatives, to occupy lower flood-plain benches and since riparian areas are more prone to invasion by nonnative plants it is critical that the impacts of lower peak flows on downstream vegetation be addressed in the EIS. According to the 2005

USGS report, “measures of plant abundance, species richness, diversity, and distribution all showed a decline since 2001 (Kearsley 2004).” The report also states that these changes were due to changes in dam operations and persistent drought.

Recommendations:

The restoration components of a long-term management plan must result in improving Grand Canyon National Park resources (which is the mandate of the Grand Canyon Protection Act). In addition, the restoration components should include the reasonable and prudent alternatives of the Biological Opinion.

The Long-Term Experimental Plan must address mechanisms to:

1) Restore essential sediment and nutrients into the main stem of the Colorado River in the Grand Canyon.

2) Restore flow regimes to properly transport the sediment and nutrients within Grand Canyon, when and where it belongs. The Biological Opinion and the EIS referred to these as Seasonally Adjusted Steady Flows.

3) Restore the seasonally variable water temperature in the main stem of the Colorado River through Grand Canyon. The Biological Opinion and the EIS referred to this as Selective Withdrawal by means of a Temperature Control Device.

4) Implement a restoration and recovery program for the Colorado River corridor in Grand Canyon that includes the recovery of all species known to be native to Grand Canyon prior to the operation of Glen Canyon Dam.

5) Implement a non-native eradication program to minimize alien species in the Grand Canyon river corridor with a priority on those that prey on, compete with, or otherwise impair the health of native plants and animals.

6) Complete the Little Colorado River Management Plan as recommended by the Biological Opinion.

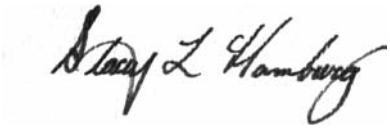
7) Address the dysfunction of the Adaptive Management Program. The AMP should be replaced by an open source and independent body of research and advisory scientists, where the monitoring and research data are consistently and thoroughly peer-reviewed prior to providing any recommendation to the Secretary of Interior.

8) Assess how the river could be managed with shrinking reservoirs and emphasize water conservation in long-term dam and reservoir management plans. The new study by the National Research Council has indicated that long-term drought is the likely outcome of climate change in the Southwest. The Bureau should consider at what point river management – specifically, water and power needs – would be better served by maximizing water storage in Lake Mead rather than dividing it between Mead and Powell reservoirs. The Bureau should assess the comparative loss of water from bank storage and evaporation between these two choices.

Thank you for considering our comments. Please keep us informed of any issues or developments in this process.

Sincerely,

Don Steuter
Conservation Chairperson
Sierra Club – Grand Canyon Chapter
202 E. McDowell Rd, Suite 277
Phoenix, AZ 85004
(602) 253-8633



Stacey Hamburg
Grand Canyon Conservation Program Coordinator
Sierra Club – Grand Canyon Chapter
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928-774-6514

References

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ORIGINAL

CMC22707-06

Stephen Canning
PO Box 370
41700 Chinook Way
Port Orford, OR 97465

February 21, 2007

Mr. Rick Gold
Regional Director
Bureau of Reclamation
Upper Colorado Region
Attn: UC-402
125 South State Street
Salt Lake City, UT 84138-1147

RE: Comments on Glen Canyon Dam EIS

Dear Mr. Gold,

I am writing to comment on the Glen Canyon Dam EIS because of my concern for the ecological integrity of the Colorado River system. Until recently, I lived in Northern Arizona and have followed the implementation of the Grand Canyon Protection Act and the 1996 Record of Decision with great interest.

Years of study by Federal, State, Tribal and academic entities as well as the BLM have documented significant impacts on the river ecosystem by the Glen Canyon Dam. In spite of promises in the form of the Grand Canyon Protection Act and the 1996 Record of Decision to mitigate these impacts, the health of the river ecosystem continues to degrade.

I am concerned that the Long-term operations plan will continue the process of data collection but will also continue the inaction of the past ten years in terms of making actual changes, informed by that data, in the operation of the dam. I therefore suggest that the following possible actions be considered in the EIS:

- a serious program to control non-native species
- a regime of seasonal sediment inputs into the Grand Canyon .
- the design of a natural flow operational regime
- the design of a water temperature regime to approach the natural seasonal water temperature variation of the river downstream

I am also concerned about the Glen Canyon Dam Adaptive Management Program. Adjustments to the operation of the Glen Canyon Dam are critical to the future of the Colorado River and the Grand Canyon. It is, therefore, important that the Glen Canyon Dam EIS not only accurately inform the decisions regarding the operation of the dam, but also provide mechanisms to insure necessary changes in that operation. I strongly suggest that the EIS consider developing an independent review process for the program which would be robust, transparent, and understandable to the general public.

Sincerely,

Stephen Canning

From: "Steve Haluska" <stevehaluska@wildblue.net>
To: <GCDExpPlan@uc.usbr.gov>
Date: Tue, Jan 30, 2007 5:40 AM
Subject: EIS for Glen Canyon Dam

Dear Mr. Gold,

Thank you for the opportunity to comment on the current EIS for Glen Canyon Dam. I have been enjoying Lake Powell since 1985, and I'd like to see it preserved and protected for the future generations.

The fact that the five independent groups won their lawsuit demanding this EIS is disturbing, and I believe they should be financially accountable for said EIS, and also for any future tests, studies, or changes that they demand.

As far as my recommendations go for operations of Glen Canyon Dam, let the experts continue with the daily fluctuating flows with just enough water to meet downstream needs. Environmental groups should have no say on how to operate the dam. Arizona Game & Fish and the Adaptive Management Work Group, along with the Bureau of Reclamation, should make all recommendations.

I don't think the dam should be modified at the cost of millions to spill warmer water through the Grand Canyon. The environmentalists claim this is the only solution to save the small Chub population. However, they have blinders on when it comes to the repercussions. With the current threat of the Quagga Mussel invasion of Lakes Mead, Mohave, and Havasu, the mussels are sure to range throughout the entire Colorado River watershed very soon. Should the mussels get into the Grand Canyon, they would have a difficult time reproducing, as they need a temperature of at least 50 degrees Fahrenheit. Add to that the velocity of the water, and they have difficulty attaching to solid underwater strata. But if warmer water spilled through the Canyon, it would likely welcome the mussels. In fact, all kinds of changes would occur with warmer water-so many that the scientists would have a hard time keeping up with them all.

Let's just take a quick look at what would happen, if the Grand Canyon were to receive warmer water from Glen Canyon Dam: The Lees Ferry trophy trout fishery would be in jeopardy, as would all trout in the river, the Asian Tapeworm which is living in the Little Colorado River could get into the mainstream Colorado River to infect other fish species, channel catfish and carp (both warm water species) would work their way upstream from Lake Mead, and further prey on endangered fish in the Canyon. Prior to the dam, the catfish were the dominant fish in the river. Although the catfish seem docile, they are more predacious than trout. If the bonytail chub, a native fish, were to be re-introduced into the Grand Canyon, it would likely hybridize with the humpback chub. Likewise, the razorback sucker would hybridize with the flannelmouth sucker. So the dam has helped the native fish by keeping them from inter-breeding. The species' integrity remains intact.

The environmentalists have been calling for the removal of Glen Canyon Dam for years now. Why do we never hear them calling for the removal of other dams on the Colorado River system? Their claims and "facts" just don't hold water. Good thing Glen Canyon Dam does! Keep the dam functioning just as it is. These groups have no business messing with the water supply for the southwestern United States.

I think the priority right now is to deal with the new Quagga Mussel invasion. I think the resources need to be spent now to prevent them from becoming established in Lake Powell. When or if the mussels get into Lake Powell, much more will be spent to control or remove them in the future, so the dam can operate properly.

Thank you for your time,

Steve Haluska

Central, Utah

GCDExpPlan GCDExpPlan - Glen Canyon Dam EIS/LTEP planning effort

From: Steve Miller <steve4444@mindspring.com>
To: <GCDExpPlan@uc.usbr.gov>
Date: Wed, Jan 3, 2007 7:44 PM
Subject: Glen Canyon Dam EIS/LTEP planning effort

See

CC: <GCRG@infomagic.net>

GCDExpPlan@uc.usbr.gov

To Whom It May Concern:

This concerns the preparation of an Environmental Impact Statement (EIS) for the development of a Long-Term Experimental Plan (LTEP) for the operation of Glen Canyon Dam, so as to improve and protect downstream resources in Grand Canyon National Park (GCNP).

1. There can be no dispute that the presence and operation of Glen Canyon Dam has not only denied access to and destroyed most of Glen Canyon, but is also in the process of destroying many natural features in the Colorado River corridor in GCNP.

2. The original character of the Colorado River has been destroyed. Wildly fluctuating releases of very cold and sediment-free water have replaced seasonally-controlled flows of warm and sediment-laden water.

3. The absence of sediment is leading to the loss of beaches and backwater habitat. The cold water is leading to the extirpation of endemic warm-water species of fish.

4. The unnaturally cold water and fluctuating releases severely diminish the river-running experience. This is especially the case with the high fluctuating flows often seen in the winter months.

5. The high fluctuating flows are characterized as an attempt to suppress the reproduction of trout. The presence of trout is thought to impact the warm-water species. This makes no sense. The unnaturally cold water represents the greatest threat to warm-water species, not trout.

6. As a consequence of recent changes in the Colorado River Management Plan (CRMP), many more private river-running trips will take place during the winter months, and be subject to the difficulties (stranding) and inherent absurdity of high fluctuating flows. These flows must cease.

7. The best way to restore warm-water species is to restore warm water. This can and should be done with the installation of a Selective Withdrawal Device. In the meantime, please spare river-runners and trout the indignities of high fluctuating flows.

8. A slurry pipeline should be constructed to deliver sediment to the river.

9. Finally, Glen Canyon Dam should be de-constructed and Lake Powell emptied. Glen Canyon and the Colorado River in the Grand Canyon should be restored to their original state.

Steve Miller, private river-runner and author of: "The Grand - The Colorado River in the Grand Canyon, a Photo Journey"
70 CR 84B
Santa Fe, NM 87506
505-455-2633
steve4444@mindspring.com

From: "STEVE STICH" <alltool1@cox.net>
To: <GCDExpPlan@uc.usbr.gov>
Date: Fri, Feb 23, 2007 9:17 PM
Subject: Comments for the EIS for a Long Term Experiment Plan (LTEP) for Glen Canyon Dam

Dear Sir.
I will not claim to know anything or care anything about Humpback chubs. I am simply reminding you people that the Colorado River is there for water and electricity and that is it. Oh and it is kinda nice to look at too. The fact that my taxs go to pay for a 10 yr. EIS is madding to say the least. It is almost a forgone conclusion that any conclusions you derive from this study will end up being wrong in the long run. so just let the stupid little fishs live or die as they see fit and trust me only the wack jobs with nothing better to do will care.

RECLAMATION
Managing Water in the West

U.S. Department of the Interior
Bureau of Reclamation

COMMENTS DUE BY WEDNESDAY, FEBRUARY 28, 2007

PLEASE PRINT

Date: 1-31-07

Name: Suzanna McDougal Title (if applicable) :

Telephone: 928-771-2408 Fax:

Organization/Business (if applicable): E-Mail:

Address: PO Box 12153

City: Prescott State: AZ Zip: 86303

☒ Yes, I would like to be added to your mailing list: E-Mail ☐ US Mail ☒

The Bureau of Reclamation is seeking public comment on the adoption of a Long-Term Experimental Plan for the future operation of Glen Canyon Dam and other associated management activities. Your input on the scope of the project and the issues and alternatives that should be analyzed is greatly appreciated. Please write legibly.

The only way to recover the fundamentally altered Colorado River ecosystem below Glen Canyon Dam would be to remove the dam. Native fish species can not thrive or even live in their altered environment of clear cold water. Trout now thrives because of this change caused by the dam. Because of the high evaporation rate from the lake created behind the dam, we are loosing valuable resources. We are in a desert and water must be conserved. Remove the dam.

Please submit your comments in the space provided, fold the card in half, tape the edges, and mail the completed card back to:
Regional Director, Bureau of Reclamation, Upper Colorado Region, Attention: UC-402, 125 South State Street, Salt Lake City, Utah 84138-1147.
Comments must be received by February 28, 2007.

UAMPS
UTAH ASSOCIATED MUNICIPAL POWER SYSTEMS

2825 E. Cottonwood Parkway
Suite 200
Salt Lake City, Utah 84121-7077
Phone: 801-566-3938
Toll Free: 800-872-5961
Fax: 801-561-2687

December 28, 2006

Mr. Randy Peterson
Bureau of Reclamation
Upper Colorado Region Office
125 South State Street
Salt Lake City, UT 84318-1147

sent via email only to: rpeterson@uc.usbr.gov

RE: Notice of Intent to Prepare an Environmental Impact Statement ("Notice")

Dear Mr. Peterson:

Utah Associated Municipal Power Systems (UAMPS) hereby requests cooperating agency status in the above referenced process. UAMPS is a separate legal entity and a political subdivision of the State of Utah organized in 1980 under the Interlocal Co-operation Act, Title 11, Chapter 13, Utah Code Annotated 1953; its members include thirty-eight municipalities, one joint action agency, one electric service district, three public utility districts, two water conservancy districts, two cooperatives, and one non-profit corporation (collectively, the Members). The Members are located in Utah, Arizona, Idaho, Nevada, New Mexico and California.

As indicated in the December 12, 2006 Notice (at 74557), the Colorado River Storage Project Act of 1956 includes the generation (and sale) of electric energy from Glen Canyon Dam as a project purpose. UAMPS members purchase over 9% of the generation of the Colorado River Storage Project (CRSP) and, along with other CRSP contractors, repay over 95% of the federal investment in the CRSP.

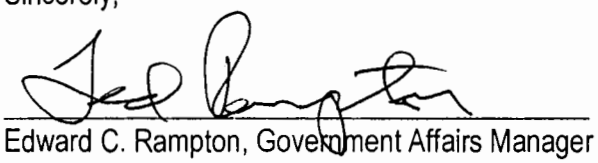
As one of the generation facilities of the CRSP, Glen Canyon Dam operations are of critical importance to UAMPS members. The CRSP, including Glen Canyon Dam, is a substantial part of the power resource for many Utah cities. For example, the project supplies 50% of the firm power supply for Holden, Utah 45% for Kanosh, Utah, 44% for the City of Enterprise, Utah and 36% for the City of Bountiful, Utah. Changes in dam operations through a long-term program of experimentation will have a direct impact on these and all other customers of the CRSP system.

The Notice indicates that a purpose of the EIS will be to address specific hypotheses "include(ing) the effect of dam release temperatures; ramp rates; non-native control; and the timing, duration, and magnitude of BHBF releases". (Notice at 74558). Clearly, Glen Canyon Dam hydropower generation may be impacted.

UAMPS is willing to provide generation resource and market expertise to the process through the use of Mr. Edward C. Rampton. In the event Mr. Rampton is unable to attend, Ms. Leslie James of the Colorado River Energy Distributors Association (CREDA) or Mr. Clifford Barrett will attend. CREDA is a separate non-profit legal entity, established in 1978, and, like UAMPS, is also a member of the Glen Canyon Adaptive Management Work Group (AMWG). UAMPS is a member of CREDA. CREDA and its other members have the same direct and specific interest in the process as does UAMPS. Both Ms. James and Mr. Barrett have many years of background relating to wholesale generation and market impacts, and, specifically, the CRSP project, and are uniquely qualified to assist in measuring and evaluating the impacts that changes in dam operations will have on CRSP firm power contractors. The consumers represented by these organizations will be directly affected by the results of this process. We believe these interests are not specifically currently represented and would be a worthwhile addition to the EIS cooperating agency process.

Please reply at your earliest convenience as to this request. My contact information is listed below. Thank you for your consideration.

Sincerely,



Edward C. Rampton, Government Affairs Manager
UAMPS
Phone: 801-566-3938
Email: ted@uamps.com

cc: Rick Gold, USBR; Dave Sabo, USBR
Leslie James, CREDA
Clifford Barrett

DC
02 0700
S 110
R 700
413

From: "CREDA" <creda@qwest.net>
To: "Darryl Beckmann" <DBECKMANN.4ucro.ibr4dm10@uc.usbr.gov>
Date: 12/29/2006 2:40:58 PM
Subject: Fw: UAMPS Request for Cooperating Agency Status - Glen Canyon EIS

----- Original Message -----
From: CREDA
To: Bennett Raley ; gcaan@govmail.state.nv.us ; Dave Mazour
Sent: Friday, December 29, 2006 1:30 PM
Subject: Fw: UAMPS Request for Cooperating Agency Status - Glen Canyon EIS

----- Original Message -----
From: Ted Rampton
To: rpeterson@uc.usbr.gov
Cc: Rick Gold ; dsabo@uc.usbr.gov ; CREDA ; cibarre@attglobal.net
Sent: Friday, December 29, 2006 1:08 PM
Subject: UAMPS Request for Cooperating Agency Status - Glen Canyon EIS

Randy;

Attached is UAMPS request for cooperating agency status for the Glen Canyon EIS.

Please let me know if you have any questions.

Ted Rampton

Utah Associated Municipal Power Systems

801-327-6625

ted@uamps.com

From: "Thane D. Somerville" <t.somerville@msaj.com>
To: <GCDExpPlan@uc.usbr.gov>
Date: Sat, Feb 10, 2007 10:47 PM
Subject: Long Term Experimental Plan EIS Mailing List

Hello:

Please add the following contacts to the mailing list for notices relating to the Long-Term Experimental Plan EIS:

Mason D. Morisset

Thane D. Somerville

Morisset, Schlosser, Jozwiak & McGaw

801 Second Avenue, Suite 1115

Seattle, WA 98112

Thank you,

Thane Somerville

ORIGINAL

THE HOPI TRIBE

Todd Honyaoma, Sr.
Vice Chairman

February 7, 2007

Rick L. Gold, Regional Director
Bureau of Reclamation, UCR
125 South State Street
Salt Lake City, Utah 84138-1147

RE: Environmental Impact Statement (EIS) for the adoption of a Long-Term Experimental Plan for the Future Operation of Glen Canyon Dam and Other Associated Management Activities.

Dear Mr. Gold,

The Hopi Tribe has reviewed the November 6, 2006, and December 12, 2006, Federal Register announcements identifying the intent of the Bureau of Reclamation (BOR) to prepare an EIS on the adoption of a Long-Term Experimental Plan for the future operation of Glen Canyon Dam and associated management activities. Because of the Hopi Tribe's well-documented cultural and historic ties to the Grand Canyon and the surrounding area, the Hopi Tribe requests full participation as a cooperating agency in the development of the EIS. As you are aware, the Hopi Tribe has an extensive record of participation in research and management activities surrounding the operations of Glen Canyon Dam, both as a member of the Adaptive Management Work Group.

In the development of the Purpose and Need for the EIS the Hopi Tribe urges the BOR to recognize all of the resources that are potentially affected by the operations of Glen Canyon Dam rather than focus efforts solely on those identified within the Settlement Agreement (as referenced in the November 6, 2006 Federal Register notice). In particular, the Hopi Tribe is concerned with the ongoing erosion of archaeological sites that are culturally affiliated to the Hopi people and degradation of other Hopi Traditional Cultural Properties bordering the Colorado River through the Glen and Grand Canyons. The development of a comprehensive plan needs to actively consider both flow and non-flow alternatives to mitigate this degradation. To focus the experiment solely on aquatic resources as proposed would leave out the majority of the ecosystem for which Grand Canyon National Park and Glen Canyon National

Recreation Area were established, and inhibit everyone's understanding of the processes leading to the erosion of important and protected cultural resources.

Further, the Hopi Tribe urges that the Plan be developed in a scientifically rigorous manner, i.e., by first developing the questions and hypotheses to be addressed and then developing the flows or other activities to test them. Working in the reverse manner will limit the robustness of the experiment, will likely not yield the appreciable gains in knowledge that would otherwise result from a well designed experiment, and will be little more than monitoring of management driven actions.

The Hopi Tribe anticipates working with the BOR in a cooperative and mutually beneficial manner to develop a comprehensive and scientifically-based Long-Term Experiment Plan for understanding and improving the riverine resources below Glen Canyon Dam. If you have questions or would like to discuss these comments further, please contact either Leigh Kuwanwisiwma, Director of the Hopi Cultural Preservation Office and AMWG representative at (928) 734-3611, or Michael Yeatts, staff archaeologist with the Hopi Cultural Preservation Office and TWG representative at (928) 523-6573.

Sincerely,

Todd Honyaoma, Sr., Vice Chairman
The Hopi Tribe
P.O. Box 123
Kykotsmovi, Arizona 86039

RECLAMATION
Managing Water in the West

U.S. Department of the Interior
Bureau of Reclamation

— *Comment Card* —

COMMENTS DUE BY WEDNESDAY, FEBRUARY 28, 2007

PLEASE PRINT

Date: 1/5/07

Name: Tiffany George Title (if applicable): Guide

Telephone: 801-947-7581 Fax:

Organization/Business (if applicable): Western River Exp. & GCRG E-Mail: tiffany_george@hotmail.com

Address: 8663 Alta Canyon Dr

City: Sandy State: UT Zip: 84093

☒ Yes, I would like to be added to your mailing list: E-Mail ☐ US Mail ☒

The Bureau of Reclamation is seeking public comment on the adoption of a Long-Term Experimental Plan for the future operation of Glen Canyon Dam and other associated management activities. Your input on the scope of the project and the issues and alternatives that should be analyzed is greatly appreciated. Please write legibly.

I have a concern that the minimum CFS is going to ~~be~~ changed to reflect a number lower than 5000 CFS. The Colorado river through the Grand Canyon contains many treacherous rapids that become increasingly dangerous in lower water. Realizing that recreational use is minor in the scheme of CREDA and BOR concerns, it still represents a good number of stewards of the Grand Canyon— people who are there on a daily basis teaching conservation and preservation of our World Heritage Site. I would urge this EIS to uphold the agreements from the Grand Canyon Trust & please take into consideration the human impact that the Grand Canyon visitor takes home in memories.

Please write comments in the space provided and submit to a project representative.

From: Tiffany Mapel <tiffmapel@yahoo.com>
To: <GCDExpPlan@uc.usbr.gov>
Date: Mon, Jan 29, 2007 8:06 PM
Subject: Glen Canyon Dam EIS comments

Mr. Rick Gold
Regional Director, Bureau of Reclamation
Upper Colorado Region
Attn: UC-402
125 South State Street
Salt Lake City, Utah 84138-1147

Dear Mr. Gold,

Thank you for the opportunity to comment on the current EIS for Glen Canyon Dam. I have been enjoying Lake Powell since 1985, and I'd like to see it preserved and protected for the future generations.

The fact that the five independent groups won their lawsuit demanding this EIS is disturbing, and I believe they should be financially accountable for said EIS, and also for any future tests, studies, or changes that they demand.

As far as my recommendations go for operations of Glen Canyon Dam, let the experts continue with the daily fluctuating flows with just enough water to meet downstream needs. Environmental groups should have no say on how to operate the dam. Arizona Game & Fish and the Adaptive Management Work Group, along with the Bureau of Reclamation, should make all recommendations.

I had the privilege of floating the Grand Canyon for two weeks in the summer of 2005. The environmentalists paint a bleak picture of a dying habitat in peril, so that's what I expected. I'm glad to say they were wrong, and I was pleasantly surprised. The Canyon was rich with wildlife, and had three separate riparian zones. Everything looked in harmony. I even saw a healthy school of Humpback Chubs near the confluence of the Little Colorado River, the home of the endangered fish. Since the dam, life in the Canyon has adapted. It may not be "natural," like the radical environmentalists want, but it's working. To make any changes to what is currently being done threatens the current balance. In addition, the beaches were plentiful and large. We had no problem finding a place to camp. I don't know why people claim the beaches are disappearing. Besides, isn't that what created the Canyon in the first place—erosion?

I don't think the dam should be modified at the cost of millions to spill warmer water through the Grand Canyon. The environmentalists claim this is the only

solution to save the small Chub population. However, they have blinders on when it comes to the repercussions. With the current threat of the Quagga Mussel invasion of Lakes Mead, Mohave, and Havasu, the mussels are sure to range throughout the entire Colorado River watershed very soon. Should the mussels get into the Grand Canyon, they would have a difficult time reproducing, as they need a temperature of at least 50 degrees Fahrenheit. Add to that the velocity of the water, and they have difficulty attaching to solid underwater strata. But if warmer water spilled through the Canyon, it would likely welcome the mussels. In fact, all kinds of changes would occur with warmer water—so many that the scientists would have a hard time keeping up with them all.

Let's just take a quick look at what would happen, if the Grand Canyon were to receive warmer water from Glen Canyon Dam: The Lees Ferry trophy trout fishery would be in jeopardy, as would all trout in the river, the Asian Tapeworm which is living in the Little Colorado River could get into the mainstem Colorado River to infect other fish species, channel catfish and carp (both warm water species) would work their way upstream from Lake Mead, and further prey on endangered fish in the Canyon. Prior to the dam, the catfish were the dominant fish in the river. Although the catfish seem docile, they are more predacious than trout. If the bonytail chub, a native fish, were to be re-introduced into the Grand Canyon, it would likely hybridize with the humpback chub. Likewise, the razorback sucker would hybridize with the flannelmouth sucker. So the dam has helped the native fish by keeping them from inter-breeding. The species' integrity remains intact.

The environmentalists have been calling for the removal of Glen Canyon Dam for years now. Why do we never hear them calling for the removal of other dams on the Colorado River system? Their claims and "facts" just don't hold water. Good thing Glen Canyon Dam does! Keep the dam functioning just as it is. These groups have no business messing with the water supply for the southwestern United States.

I think the priority right now is to deal with the new Quagga Mussel invasion. I think the resources need to be spent NOW to prevent them from becoming established in Lake Powell. When or if the mussels get into Lake Powell, much more will be spent to control or remove them in the future, so the dam can operate properly.

Thank you for your time,

Tiffany Mapel
Durango, CO

From: Tiffany Mapel <tiffmapel@yahoo.com>
To: <GCDExpPlan@uc.usbr.gov>
Date: Wed, Feb 28, 2007 3:20 PM
Subject: EIS Comments

Hello,

I have already sent in my comments, but I had more to say.

As far as the next 10 years for "experimental flows," keep the dam functioning just as it is. Just release the bare minimum for downstream needs. The fluctuating flows through the Grand Canyon should continue, as the environment has adapted to it.

I surely hope that our taxpayer dollars aren't helping the scientists to take their free river trips down the Canyon in the name of science. They need to stop killing the trout, and focus more on the Little Colorado River--the home of the endangered Humpback Chubs. Start killing the fish there that prey on the chubs, and possibly the chub population will increase.

Environmental groups (like the five who sued the Dept. of the Interior and got this EIS initiated) shouldn't be messing with the water supply for the western United States. Glen Canyon Dam should also NEVER be removed, even though these groups want to see it decommissioned. They cling to the notion that the river should be restored and water should be stored underground. Try telling that to a $400 million per year water-based recreational industry.

Unless there is a HUGE surplus of water, I see no point in doing the floods through the Grand Canyon to build beaches and "habitat." It too, is a waste of taxpayer dollars, especially when the flood water doesn't even generate electricity on its way out of the dam. What's the point???? I also heard that the dam can never run at full electrical capacity because of some environmental ruling. Whatever that is, it needs to be done away with! We need MORE clean hydroelectricity in this country, and less of those polluting coal burning plants.

The biggest threat facing the Colorado River system is the invasive Quagga Mussel, found in Lakes Mead, Mohave, and Havasu recently. We need to keep them out of Lake Powell, and the rest of the western U.S.

Thank you for your time, and long live Lake Powell!

Tiffany S. Mapel

From: "Tim Flood" <tjflood@att.net>
To: <GCDExpPlan@uc.usbr.gov>
Date: Wed, Feb 28, 2007 1:10 AM
Subject: scoping comments

Dear Bureau,

I no longer believe that the plan and course of action that the Bureau has pursued, starting in the early 1990s and continuing today, is sufficient to achieve the recovery of the ecosystem of the Colorado River in the Grand Canyon. It is entirely appropriate for the Bureau to prepare a supplemental EIS (SEIS) to consider other options for restoring the river.

I urge that the SEIS consider the root causes of the failure of adaptive management during the past decade to restore the riverine habitat and ecosystem along the Colorado River.

It is time for the process to move swiftly in considering the downward trend in number of native fish and proposing all alternatives that might restore the fish. The options that the Bureau should consider include:

1. returning the silt levels in the river to their pre-dam levels,
2. returning the river temperatures and fluctuations to pre-dam levels to promote spawning of native fish, and
3. reduction or removal of predatory non native fish.

I urge that the Bureau not allow any more native fish to head toward extinction. It is urgent that action be taken quickly to recover and restore the Colorado River.

Thank you for allowing me the opportunity to comment. Please include me on the mailing list for this important project.

Tim Flood

Friends of Arizona Rivers

503 E Medlock Dr

Phoenix, AZ 85012

From: <Tecumsehtj@aol.com>
To: <GCDExpPlan@uc.usbr.gov>
Date: Mon, Jan 29, 2007 8:26 AM
Subject: LTEP EIS Scoping Comments

Dear Mr. Gold,

Thank you for the opportunity to submit the following scoping comments for the Environmental Impact Statement on the Long-term Operations for the future operations of Glen Canyon Dam. The river ecosystem in Grand Canyon National Park has suffered immensely over the past forty years due to the operations of Glen Canyon Dam, and it's vital that a fresh look at the problem be undertaken. I have concerns, however, that the EIS as envisioned is destined to fail in this regard unless a number of critical issues are addressed.

First, I would like to express my tremendous dismay with the Department of Interior's mishandling of the recovery efforts in Grand Canyon National Park over the past 40 years, and that the information presented so far by the Bureau of Reclamation indicates that this EIS promises more of the same.

While new plans for ongoing investigation and experimentation can be beneficial, they are useless amidst a backdrop where the commitment to implement those plans is virtually non-existent. We've already experienced this with the completion of the first EIS twelve years ago, and there's nothing outlined in the purpose and need for this EIS process to indicate things will be any different once this process concludes. For this exercise to yield any meaningful outcome, the EIS process must be reconceived incorporating the following:

1. Restructuring the focus of the EIS on the recovery.

The principal objective should not be the long-term operation of Glen Canyon Dam, but the ingredients necessary to bring about the recovery and preservation of endangered species within the Colorado River corridor of Grand Canyon National Park. While such objectives may not be mutually exclusive, this has yet to be proven, and as such, one should precede the other. The focus must first address the ingredients necessary to restore the natural process to Grand Canyon's river ecosystem, and secondly how, and at what costs, can the Glen Canyon Dam/Lake Powell reservoir system be operated in order to achieve this. The restoration ingredients must include:

The return of river flows consistent with the Colorado River's natural discharge into Grand Canyon.

The re-establishment of a water temperature regime consistent with seasonal temperature variations of the Colorado River in Grand Canyon.

The re-establishment of sediment inputs into Grand Canyon consistent with the amount that would be received in a dam-free environment.

The elimination of non-native species, which have taken hold in the artificial riverine environment created by Glen Canyon Dam operations.

2. Evaluate the Decommissioning of Glen Canyon Dam.

The no-dam alternative must be evaluated as one means of achieving the restoration of the natural process necessary for the recovery and preservation of endangered species in Grand Canyon's river corridor. The no-dam alternative provides a valuable base line from which to evaluate other operational alternatives. Additionally, in light of the climate and human induced changes affecting flows into Lake Powell, and thus the viability of the dam to meet perceived water supply and hydroelectric benefits, BoR has additional incentive to examine a decommissioning or no-dam alternative consistent with the Council on Environmental Quality guidelines.

3. Replace the Working Groups of the Adaptive Management Program.

Despite being given specific instructions twelve years ago as outlined in the 1995 EIS on Glen Canyon Dam operations, the Glen Canyon Dam Adaptive Management Program (AMP) has failed to deliver in almost every aspect, causing Grand Canyon's river ecosystem to endure further damage. Many of AMP's failings were spelled out in the United State's Geological Survey's SCORE Report of October 2005. It was precisely these failings that have compelled BoR to undertake this new EIS process as part of its settlement agreement with environmental groups last year. Absent any structural changes to the AMP, any recommendations coming out of this EIS process will be of little value, as there are no mechanisms to ensure they won't be ignored as were those from the EIS twelve years ago.

Dominated by water supply and hydroelectric power interests, it's not surprising that the AMP has been intransigent toward addressing the true needs for endangered species recovery in Grand Canyon. Scientific, not political and commercial interests, should be the sole advisors to the Secretary ofInterior on how Grand Canyon's river ecosystem should be studied, monitored and managed consistent with the recovery objectives.

Therefore, the AMP should be replaced by an open source and independent body of research and advisory scientists, where the monitoring and research data are consistently and thoroughly peer-reviewed prior to formulating any recommendations to the Secretary of Interior.

We're closing in on 50 years of ecological destruction in Grand Canyon National Park due to the operations of Glen Canyon Dam. For much of this time the public has been asking that this be remedied. We continue to lose valuable time and species as the BoR procrastinates and resists the public's mandate to put the resource first. While there are plenty of substitutes to achieve the benefits Glen Canyon Dam may provide, there will never be another Grand Canyon. It's time for the BoR to stop thwarting the public's interest to protect it.

Sincerely,

Tim Tuttle
7388 Danforth Rd.
Temperance, MI 48182

CC: <Tecumsehtj@aol.com>, <ltepcomments@livingrivers.org>

From: todd runck <azdback2000@yahoo.com>
To: <GCDExpPlan@uc.usbr.gov>
Date: Wed, Feb 21, 2007 7:20 AM
Subject: Glen Canyon Dam EIS

2/21/07

Mr. Rick Gold
Regional Director
Bureau of Reclamation
Upper Colorado Region
Attn: UC-402
125 South State Street
Salt Lake City, UT 84138-1147

Subject: Comments on Glen Canyon Dam EIS

Dear Mr. Gold:

Thank you for allowing us the opportunity to submit comments for the Environmental Impact Statement on the Long-term Operations for the Future Operation's of Glen Canyon Dam. Studies completed in 1996 by the Bureau of Reclamation and other Federal, State, Tribal and academic entities documented that the river ecosystem has been significantly impacted since 1956 due to the operations of Glen Canyon Dam. The 1996 Record of Decision and the Grand Canyon Protection Act promised that the river environment of the Grand Canyon would improve. Unfortunately we continue to see a decline in the ecological integrity of the river system.

It is unclear from the information presented in the scoping meetings how the implementation of the Long-term operations plan will remedy or rectify the situation that exists today. The new plans for ongoing investigation and experimentation may be beneficial for gathering new data however it is unclear how this information will be integrated and implemented into changes in the Glen Canyon Dam operations that will allow for listed fish species to recover.

The following comments should be implemented in order to allow for a future in the Grand Canyon that meets the requirements of the Grand Canyon Protection Act.

1. Restructure the Focus of the EIS on Native Fish Recovery.

Of the four endangered fish species that historically existed in the Grand Canyon, only the humpback chub remains. Three of the native listed fish species have been extirpated from the Grand Canyon and the humpback chub remains however population numbers have dropped to perilously low levels. When evaluating the

long-term experimental plan for the future operations at Glen Canyon Dam it is important that the information learned be applied to protecting and restoring the species and habitats in the Grand Canyon. It is clear from data collected by the Grand Canyon Monitoring and Research Center that continuing operation business as usual will continue to lead to negative impacts in the Grand Canyon. Therefore it is recommended that a new suite of operation options be included in the review in the EIS:

- An evaluation of a natural flow regime operation scenario.
- The implementation and re-establishment of a water temperature regime consistent with seasonal temperature variation for the Colorado River in Grand Canyon.
- The implementation and re-establishment of seasonal sediment inputs into Grand Canyon at a level that would provide cover for native fish and provide for the build up of sands and silts necessary for building beaches and backwater habitats.
- Aggressive non-native species control including plants, birds, and fish.

2. Impacts on Lake Powell and Glen Canyon

The anticipated management of the Colorado River includes a large probability that flow regimes will be reduced due to reduced snowpack and lowered runoff volume. This probability should be acknowledged in the EIS and addressed through alternative scenarios for evaluation of the impacts to the Grand Canyon environment. Changes in the operations of Glen Canyon Dam will have a direct and immediate impact on flow patterns. The long-term monitoring plan should address how this potential will be addressed. Specific recommendations include:

- Identify potential flow regimes that may occur as a result of changing drought operation patterns at Glen Canyon Dam.
- Identify potential changes in the elevation levels of Lake Powell and how this will potentially impact the limnological conditions in the reservoir and the resulting quantity and quality of releases to the Grand Canyon.

3. Long-Term Experimental Plan

The long term should provide the basis for each scientific study that is to be conducted in the Grand Canyon and in Lake Powell. Special interest science can be as bad as special interest decisions in that critical research and data collection is not collected, often at the loss of more important information. Specific actions that should be included

in the EIS include:

- Is the USGS the appropriate entity to run the science program in the Grand Canyon?
- Identification and priority of research. It should be inherently clear and transparent as to how specific science programs are agreed to and the process to get timely data to decision-makers.
- Adequacy of support to Native American tribes in protecting their resources in the Grand Canyon.

4. Adaptive Management Program

The Glen Canyon Dam Adaptive Management Program was administratively initiated when the Record of Decision was signed by Secretary of Interior Babbitt in the fall of 1996. The intent of the program was to build on the success of the Glen Canyon Environmental Studies and to more fully integrate operational decisions at the dam with the increasing scientific information. In October 2005 the U.S. Geological Survey's SCORE report on the success of the Adaptive Management Program was reviewed. The SCORE review did not reflect favorably on the Adaptive Management Program IF the intent was to meet the requirements of the Grand Canyon Protection Act and the intent of the EIS.

Of concern with the Adoption of a Long-Term Experimental Plan for the Future Operations of Glen Canyon Dam is that it appears that the SCORE report has not been taken into consideration or actions to resolve some of the primary scientific issues identified. The current set up of the Science Program and identified review process does not take into consideration that we cannot continue business as usual if we are to meet the requirements of the Grand Canyon Protection Act and the recovery of species and their habitats in the Grand Canyon.

The EIS scope should include the following:

- An independent review of the existing Adaptive Management Program with recommendations of actions necessary to make it more effective.
- A review of the current peer-review process and Scientific Advisory Program. The concept of "conflict of interest" should be addressed to the program head and the group involved in the review.
- A revision of the membership organization for the Adaptive Management Program to provide balance between development and management interests and conservation interests. The current organization is unfairly tipped in the favor of water and power special interest groups.

The Grand Canyon Protection Act (1992) and the initial EIS on Glen Canyon Dam in 1996 provided a great

opportunity for Reclamation to step forward and be a leader in the management of the Colorado River. The past ten years have not provided the information or the process that was envisioned in 1996 and needs to be reviewed and revised in the current EIS process.

Thank you for consideration of these comments.

Sincerely,

Todd Runck
Tempe,AZ

GCDExpPlan GCDExpPlan - Future Operations of Glen Canyon Dam

From: <Tom_Ferguson@gilbert.k12.az.us>
To: <GCDExpPlan@uc.usbr.gov>
Date: 2/21/2007 3:59:03 PM
Subject: Future Operations of Glen Canyon Dam

Dear Mr Gold:
I am writing to express my views on the future operations of Glen Canyon Dam.The Glen Canyon Dam ,situated as it is, constitutes the key to any possibility of restoration and recovery efforts that are desperately needed in our signature National Park.
In the long term operation of the Glen Canyon Dam I believe the primary goal should be the implementation of strategies that will allow the recovery and preservation of endangered species in the Colorado River corridor in the Grand Canyon.The efforts of the Department of the Interior have been inadequate in the past 40 years.The recommendations of the 1995 EIS have been largely ignored.
Realistic and workable recovery efforts must include the elimination of non-native plant and animal species,the return of river flows consistent with the Colorado's natural discharge into the Grand Canyon,the establishmentof a water temperature regime consistent w/seasonal variation of the Colorado river in the Grand Canyon, and the re-establishment of sediment inputs consistent with what would be received in an undammed environment.
It appears that the recommendations of the 1995 EIS are not being followed.The Adaptive Management Work group dominated by water and power interests has continually sidestepped recommendations outlined in the 1995 EIS.
An EIS with a clear purpose that is committed to restoration of the natural hydrograph,sediment augmentation,exotic species elimination, recovery of native species,and water temprerature modification needs to be developed and implemented.
I feel that the Glen Canyon Adaptive Management Program should be replaced with an open sourced and independent body of researchers and advisory scientists whose evaluations and recommendations are consistently and thoroughly reviewed by peers before being presented to the Secretary of the Interior. The agencies and scientific researchers involved should abide by the Park's annual no motor period during October through March while conducting research and monitoring activities. In the evaluation of restoration and preservation it is absolutely certain that a no-dam alternative must be considered as a possible method to achieve the recovery and preservation of the natural ecology of the Colorado River corridor in the Grand Canyon.
Thank you for considering my views.
sincerely,

Tom Ferguson

543 N.Macdonald St.
Mesa, AZ. 85201
phone: 480 966 5418

COPY FOR YOUR INFORMATION

United States Department of the Interior

U. S. GEOLOGICAL SURVEY
Western Regional Director Office
909 First Avenue, 7th Floor
Seattle, Washington 98104

9 February 2007

To: Regional Director, Upper Colorado Regional Office, USBR

From: Western Regional Director, USGS Anne E. Kinsinger

Subject: Invitation to Participate as a Cooperating Agency for the Environmental Impact Statement for Adoption of a Long Term Experimental Plan for the Future Operations of Glen Canyon Dam

Thank you for your January 8, 2007, letter inviting the USGS to participate as a cooperating agency in the subject Environmental Impact Statement (EIS). The Grand Canyon Monitoring and Research Center (GCMRC), of the USGS Southwest Biological Science Center (SBSC), is committed to providing scientific support to the Bureau of Reclamation in the development of the EIS. Our major concern is how our involvement in this effort will impact our commitment to the Glen Canyon Dam Adaptive Management Program as specified in the GCMRC's FY07 annual work plan. Accordingly, as a first step, I request that our staff work together to develop a work plan that identifies the scope and schedule for the GCMRC's involvement in the EIS. The work plan will also help identify any additional resources that may be needed to support the GCMRC's involvement in the process.

The USGS does not routinely participate in National Environmental Policy Act (NEPA) activities in a formal capacity. However, given the unique focus of this EIS and the lead role the GCMRC will play in developing and implementing the long term experimental plan, I believe it is appropriate for the USGS to participate as a cooperating agency. The USGS will provide scientific support and technical assistance during development of the long term experimental science plan, including the evaluation of possible outcomes under the various alternatives under consideration.

Thank you for the invitation; we look forward to working cooperatively with you on this important effort. John Hamill, Chief, GCMRC, will be the USGS contact on this issue.

cc: Acting Director, USGS/SBSC
Chief, USGS/SBSC/GCMRC JOHN HAMILL
Director, USGS
Assistant Secretary, Water and Science, DOI

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FAX

Date: Feb 20, 2007 **Total Pages Including Cover:** 2

To: Dennis Kubly
801-524-3858

From: **JOHN HAMILL, CHIEF, GCMRC**
jhamill@usgs.gov

Subject: Participation in LTEP EIS

Comments:
We assumed you would have already received this by now.

If there are any problems with this Fax, please call: (928) 556-7094